FIGURE 1A

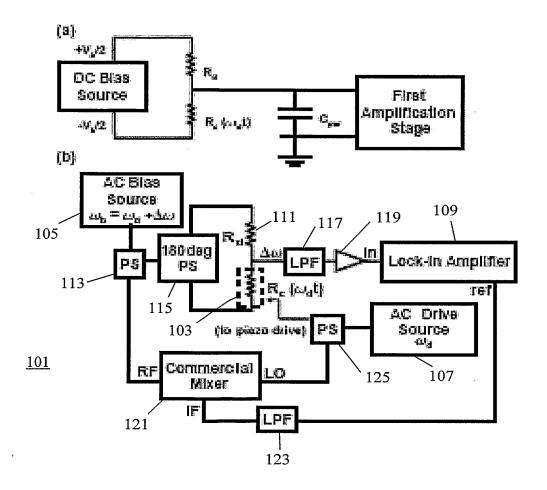


FIGURE 1B

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FIGURE 2A

FIGURE 2B

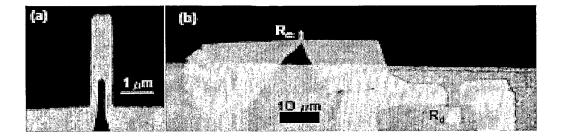


FIGURE 3A

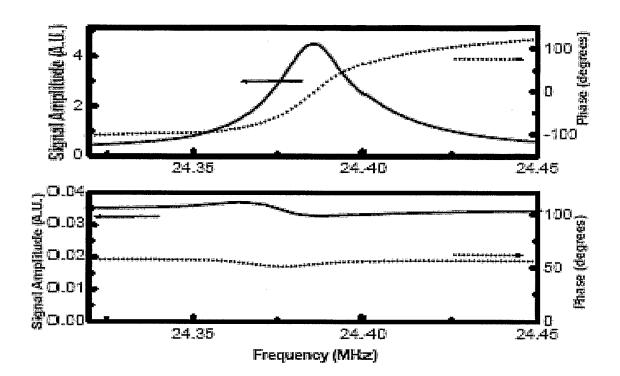
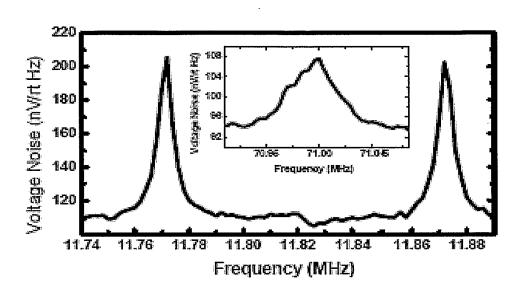


FIGURE 3B

FIGURE 4



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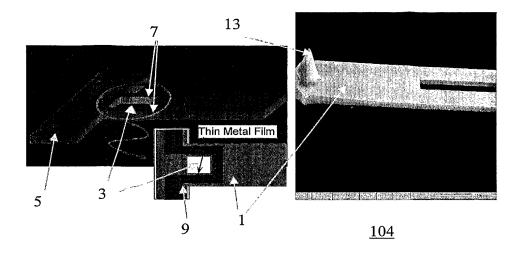


FIGURE 5a FIGURE 5b

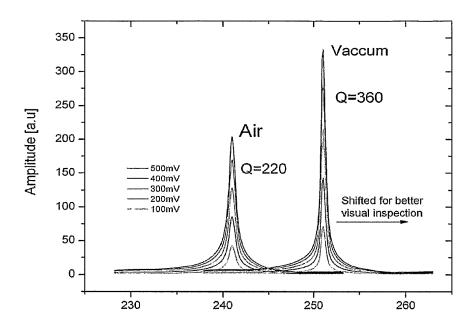


FIGURE 6

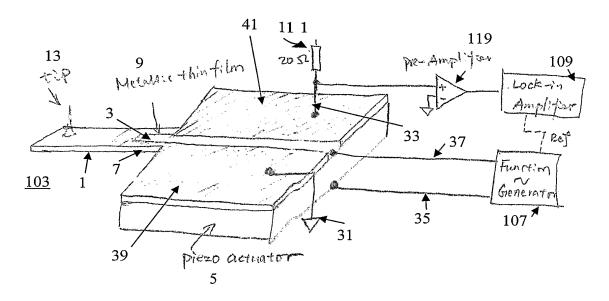
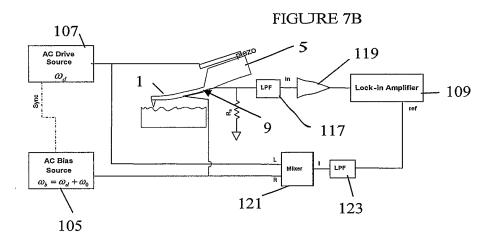


FIGURE 7A



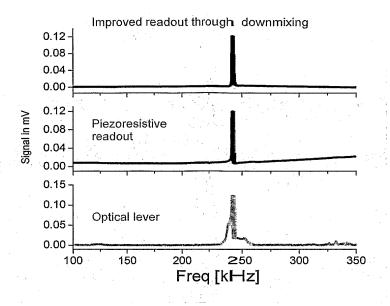


FIGURE 8

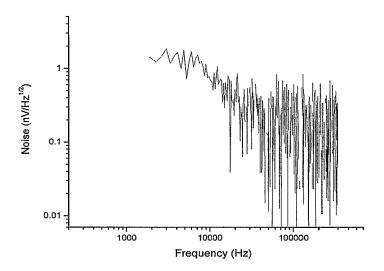
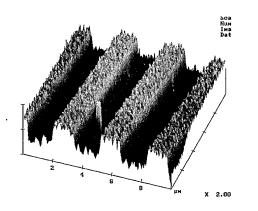


FIGURE 9



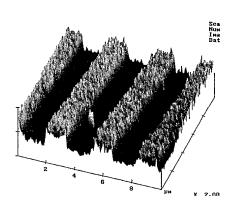
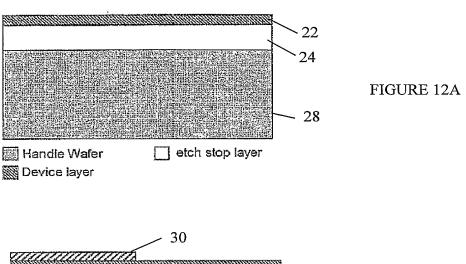


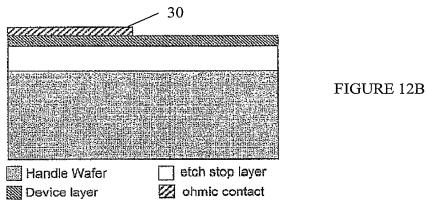
FIGURE 10A

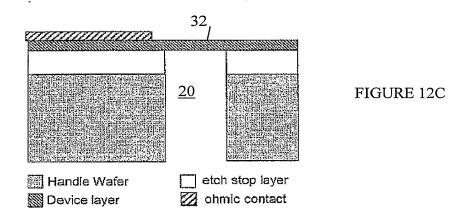
FIGURE 10B

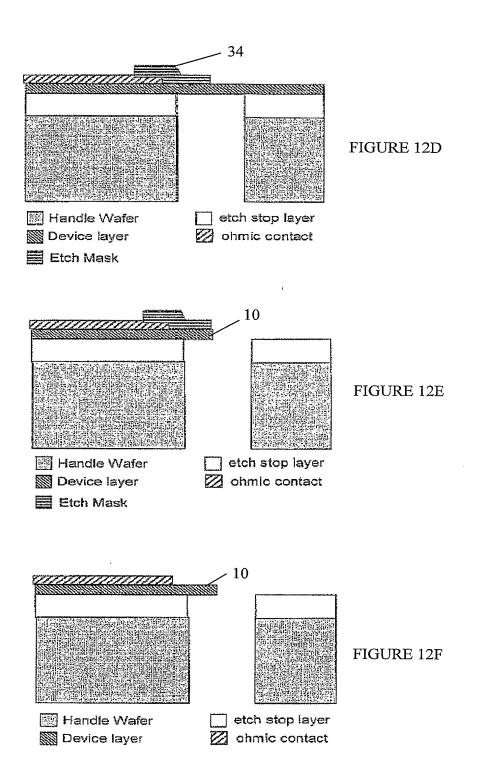
| 18 — | P-doped Silepilayer (30nm) | 22 Device Layer |
|------|----------------------------|--------------------|
| 20 | - Undoped Silayer (80nm) | |
| | SiO ₂ (400nm) | } Etch stop Layer |
| | Undoped Si (300-500μm) | Handle wafer 28 |

FIGURE 11









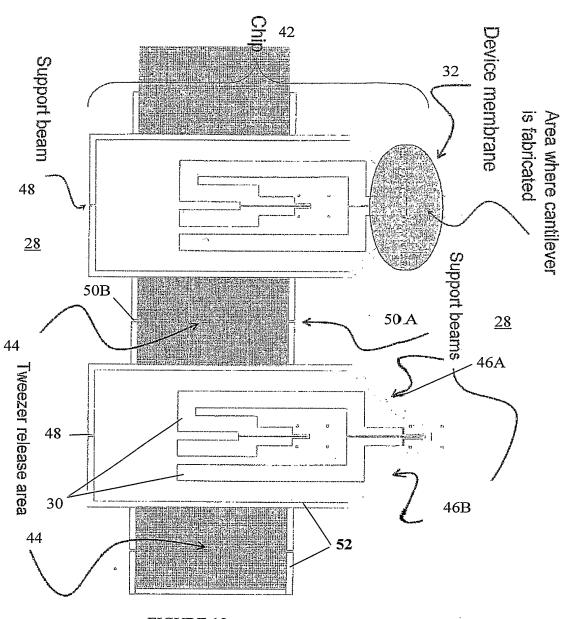
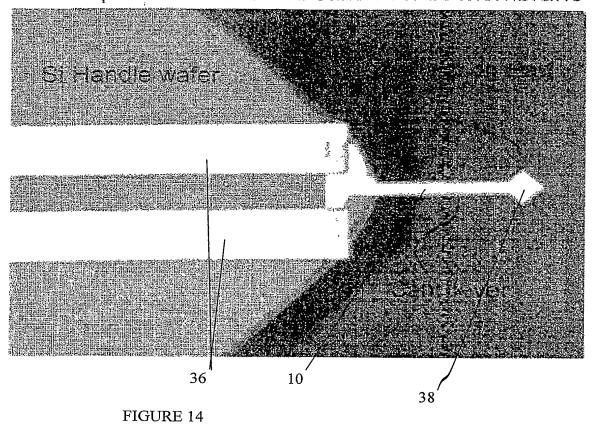


FIGURE 13

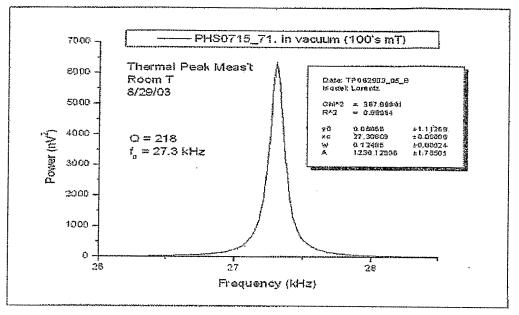
Top View: Fabricated cantilever in membrane



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FIGURE 15

Thermally driven cantilever (optical transduction)



Thermally driven cantilever (piezoresistive transduction)

